

MATHS ANSWERS

Question 1

Order the following times for 100m sprints

Bronze (now ordered)

9.7s, 9.8s, 10.1s, 10.3 s, 10.5, 10.6, 10.8, 11.1s

Gold

9.86, 10.05, 10.15, 10.51, 10.56, 10.65, 11.1, 11.5

s means seconds



Question 2

Order the follow distances from the shot put

Bronze

15.6, 16.5, 16.6, 17.2, 17.8, 17.8, 18,18.2, 18.6

Gold

15.62, 15.65, 16.25, 16.5, 16.56, 16.86, 17.55, 17.68, 18.66m

m means metres



Question 3

The Olympic Track is 400m in length.

How many laps will it take to run the following:

Bronze

800 metres= 2 laps and the 400 metres = 1 lap

Silver

1500 metres = $3\frac{3}{4}$ laps, 800 metres= 2 laps, 200 metres = $\frac{1}{2}$ lap and 100 metres= $\frac{1}{4}$ lap

Gold

4000 metres= 10 laps, 1500 metres = $3\frac{3}{4}$ laps , 2 x 800 metres = 4 laps and the 200 metres= $\frac{1}{2}$ lap



Question 4 (If you have a ruler or tape measure you can do this, otherwise use number of pencils/ teddies tall- anything you have. You can mark an outside wall with chalk , if you have any. Otherwise try sticky tape and stick it to the wall as you jump up- check this OK first.)

Work out:

Bronze

The difference between your height and how high you can

jump. **Dependent on you accurate finding of the difference. You might have subtracted or counted on.**

(Vertical Jump World Record is 117cm)

Silver

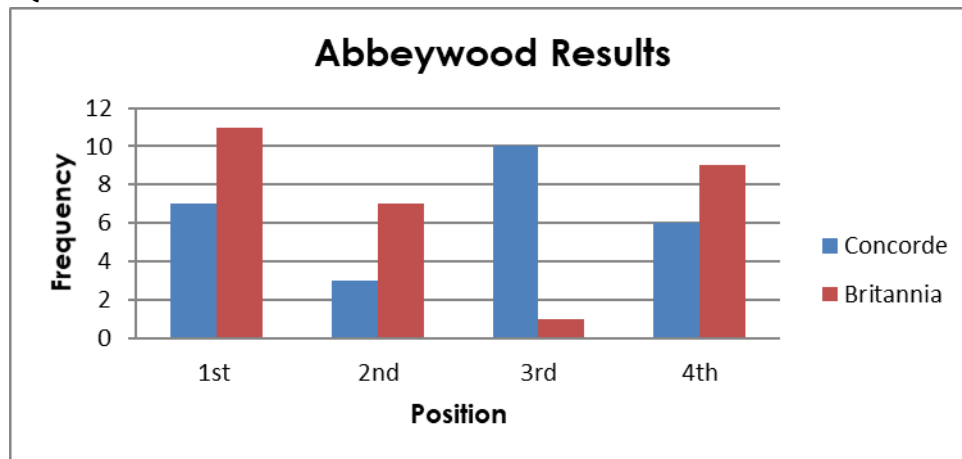


Bronze plus the **average** Jump height of your team (average= add up the heights and divide by the number of people you measured) **Dependent on your correct addition (1 mark) and correct division (1 mark)**

Gold

Bronze, Silver and is there a connection between the group's height and how high they can jump? As Bronze and Silver mark scheme. **Connection- should be written as a trend or pattern for example, the taller the person/ or the longer the legs, the higher they can jump; the shorter the person, the lower they can jump. However, given a small sample size it is possible that there is no pattern or that family members may not fit this pattern.**

Question 5



Bronze

How many people came first from Concorde? **7**

How many people came first from Britannia? **11**

Silver

How many people in total came 1st **18 (7 +11)**, 2nd **10 (3 + 7)** 3rd **11 (10 +1)** or 4th **15 (6 +9)**

Gold

Overall, who did better - Concorde or Britannia? Justify your answer

Possible answer a)

Britannia did better because

Concordia had 15 students who got 1st – 4th places

Britannia had 28 students who got 1st -4th places so Britannia have more people with placings

Possible answer b)

Britannia did better because they had more students get 1st place

Possible answer c)

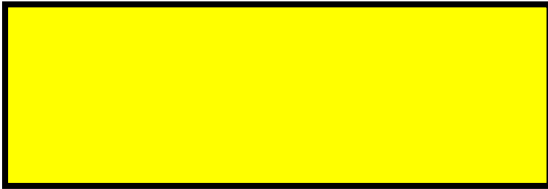
Concorde did better because:

Britannia 1st -3rd 19 placings

Concorde -1st -3rd 20 placings so more students from Concorde got 1st, 2nd or 3rds

Question 6

9m



3m



Bronze

Calculate the area of the long jump sand pit. $9 \times 3 = 27 \text{ m}^2$ units of metres squared required for the answer.

Silver

The depth of the pit is 50cm. Calculate the volume of sand in the pit. $50\text{cm} = \frac{1}{2}$ metre so volume = length x width x height/ depth so $9 \times 3 \times \frac{1}{2} = 13.5\text{m}^3$

Gold

The school need to purchase sand for the pit. If sand costs £81.95 per cubic metre . Calculate the cost of the sand to the nearest pound.

81.95

X 13.5

40975

245850 Place holder

+ 819500 Place holder

£1106.325 3 digits after the decimal point in the question

To the nearest pound = £1,106